



MINOS+ Status Report



Donatella Torretta
All Experimenters' Meeting
June 13, 2016



Near Detector



DAQ



- No issues: ran well the whole week

Electronics/Detector

- Again intermittent LI issues:
 - Data Quality flags some data as bad (hence lower LiveTimes)
 - Investigation will take place during summer shutdown
- Replaced fan pack during last Monday's beam downtime
- Replaced two Minders with hot channels and CAPID errors



Far Detector



DAQ

- No issues: ran well the whole week

Electronics/Detector

- No detector issues
- Taking CI special runs during beam downtimes



MINOS+ Status



| Start Date/Time | End Date/Time | Near Detector | | Far Detector | |
|--------------------|---------------------|---------------|--------------------|--------------|--------------------|
| | | POT Fraction | Live Time Fraction | POT Fraction | Live Time Fraction |
| 3/14/2016 00:00:00 | 3/28/2016 00:00:00 | 99.3% | 96.5% | 99.8% | 99.5% |
| 3/21/2016 00:00:00 | 3/28/2016 00:00:00 | 99.7% | 99.7% | 99.8% | 99.8% |
| 3/28/2016 00:00:00 | 4/4/2016 00:00:00 | 98.5% | 96.5% | 98.3% | 98.2% |
| 4/4/2016 00:00:00 | 4/11/2016 00:00:00 | 92.4%** | 91.9%** | 99.9% | 97.9% |
| 4/11/2016 00:00:00 | 4/18/2016 00:00:00 | 58%** | 58%** | 99.8% | 99.8% |
| 4/18/2016 00:00:00 | 4/25/2016 00:00:00 | 99.6% | 98.3% | 99.4% | 99.5% |
| 4/25/2016 00:00:00 | 05/02/2016 00:00:00 | 99.6% | 99.7% | 98% | 98% |
| 5/2/2016 00:00:00 | 5/9/2016 00:00:00 | 99.5% | 99.6% | 94.0% | 93.8% |
| 5/9/2016 00:00:00 | 5/16/2016 00:00:00 | 97.0% | 94.3% | 99.9% | 99.5% |
| 5/16/2016 00:00:00 | 5/23/2016 00:00:00 | 94.4% | 94.6% | 99.9% | 99.9% |
| 5/23/2016 00:00:00 | 5/30/2016 00:00:00 | 99.5% | 99% | 99.9% | 99.5% |
| 5/30/2016 00:00:00 | 6/6/2016 00:00:00 | 98.8% | 99% | 94% (&) | 93.8% (&) |
| 6/6/2016 00:00:00 | 6/13/2016 00:00:00 | 89.2%** | 90.5%** | 99.9% | 99.5% |

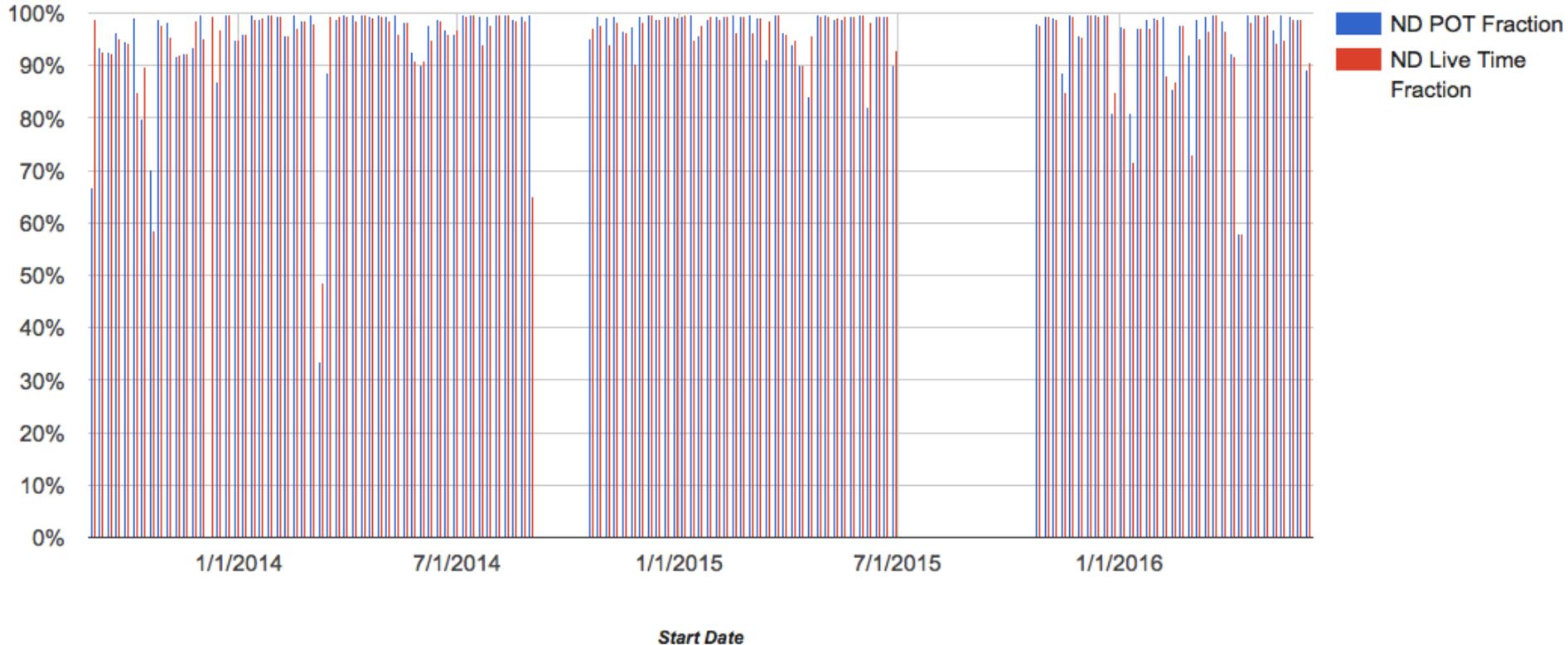
** LI issues (&) Crate 0 off



MINOS+ ND Status



ND POT fraction and Live Time Fraction

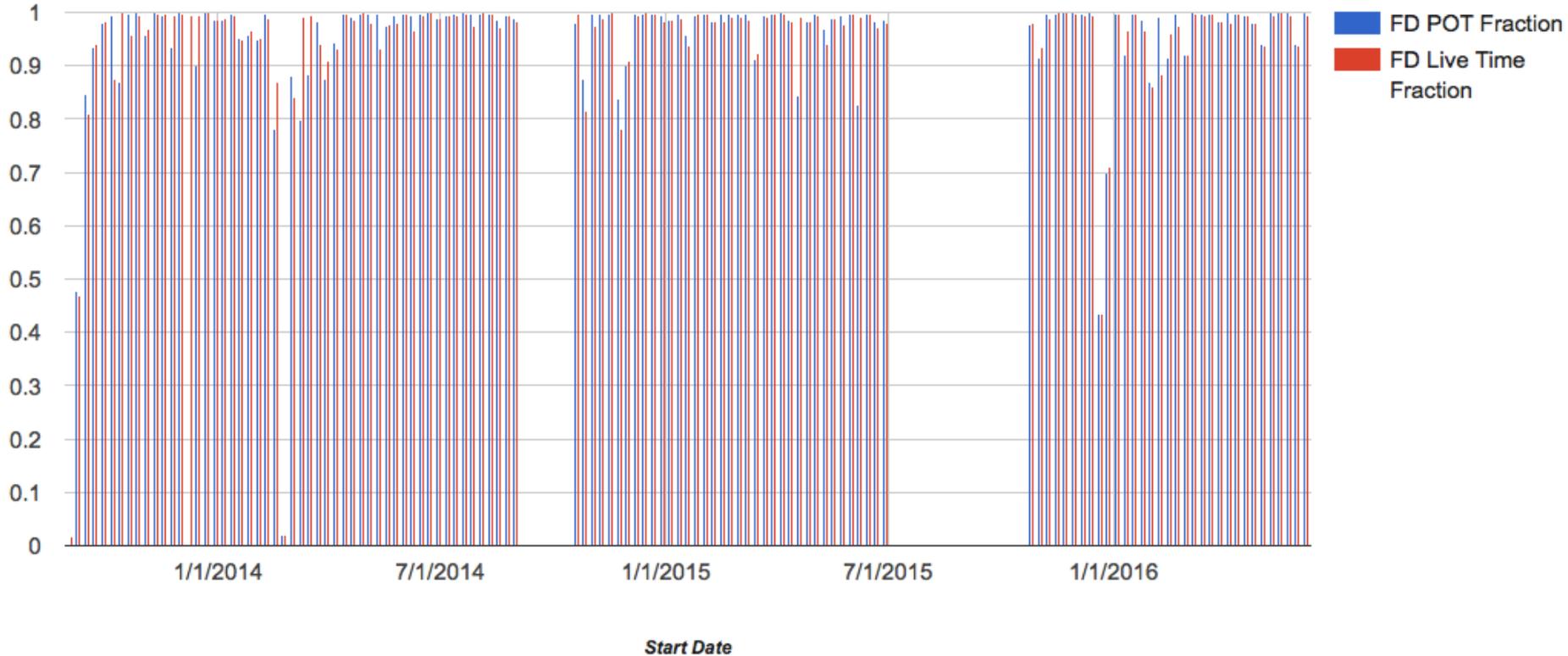




MINOS+ FD Status



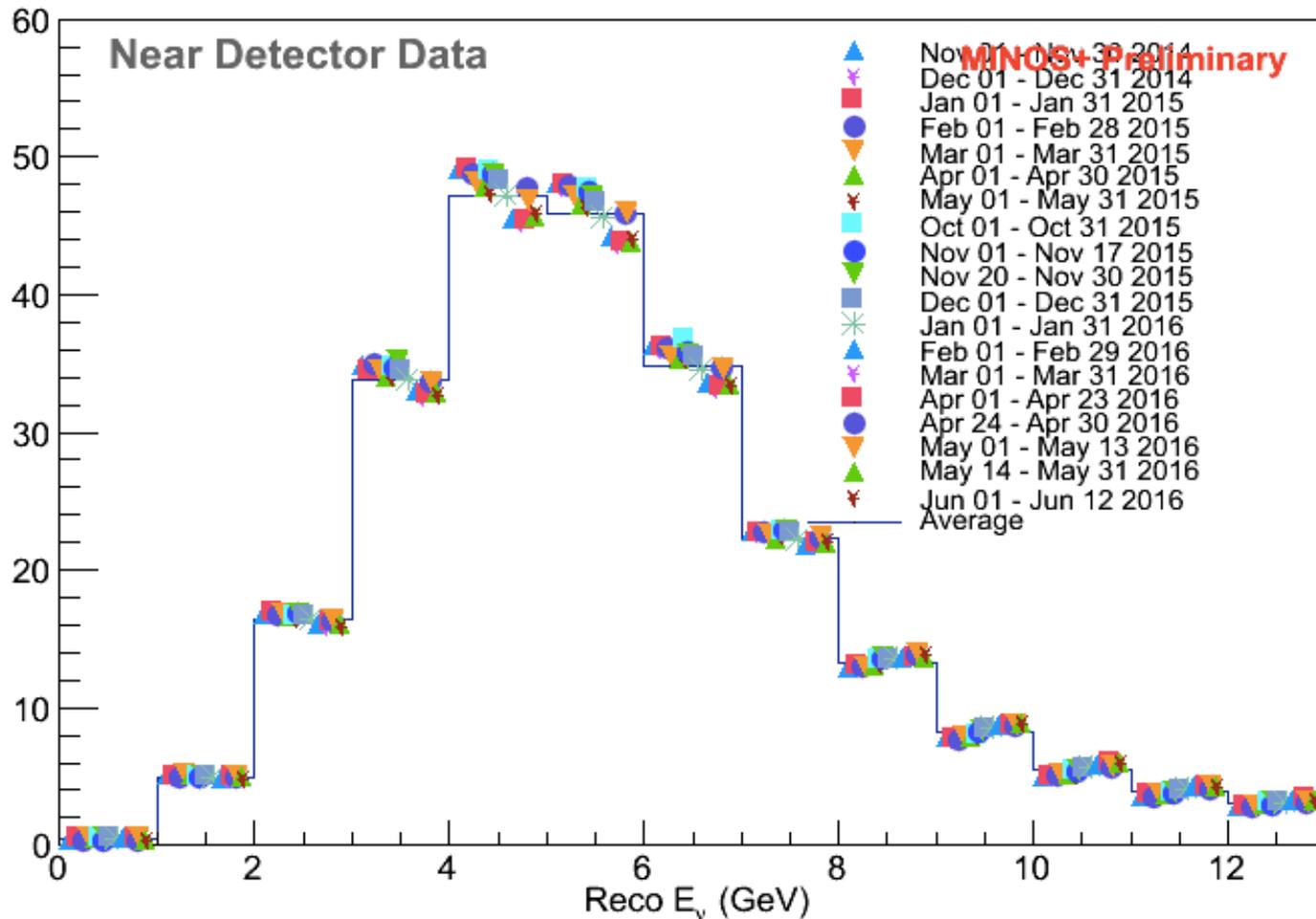
FD POT Fraction and Live Time Fraction





Energy Spectrum

Neutrino Energy Spectrum Stability (PQ and NQ)

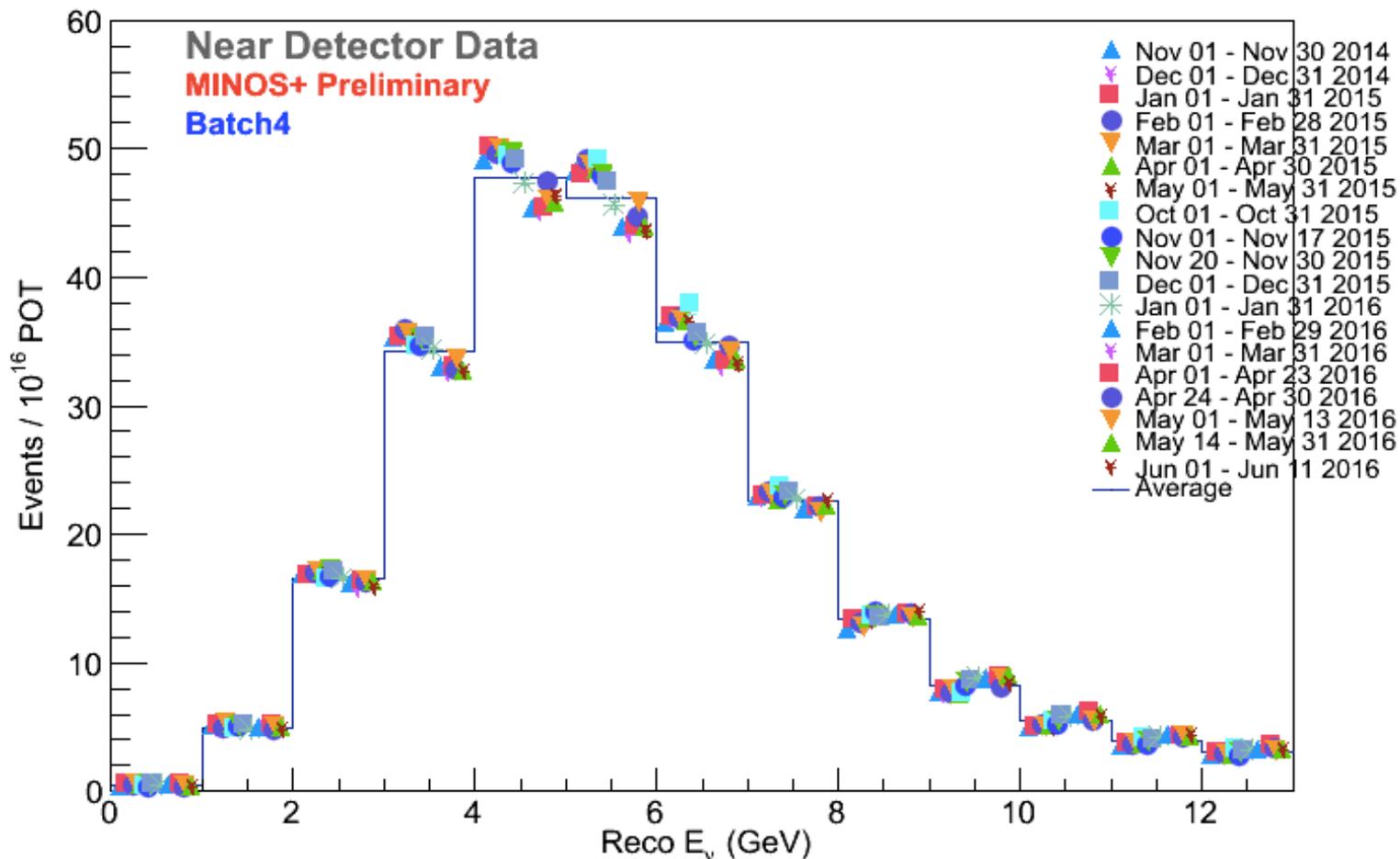




Spectrum Stability (batch #4)



Neutrino Selected Batch Energy Spectrum Stability (PQ and NQ)

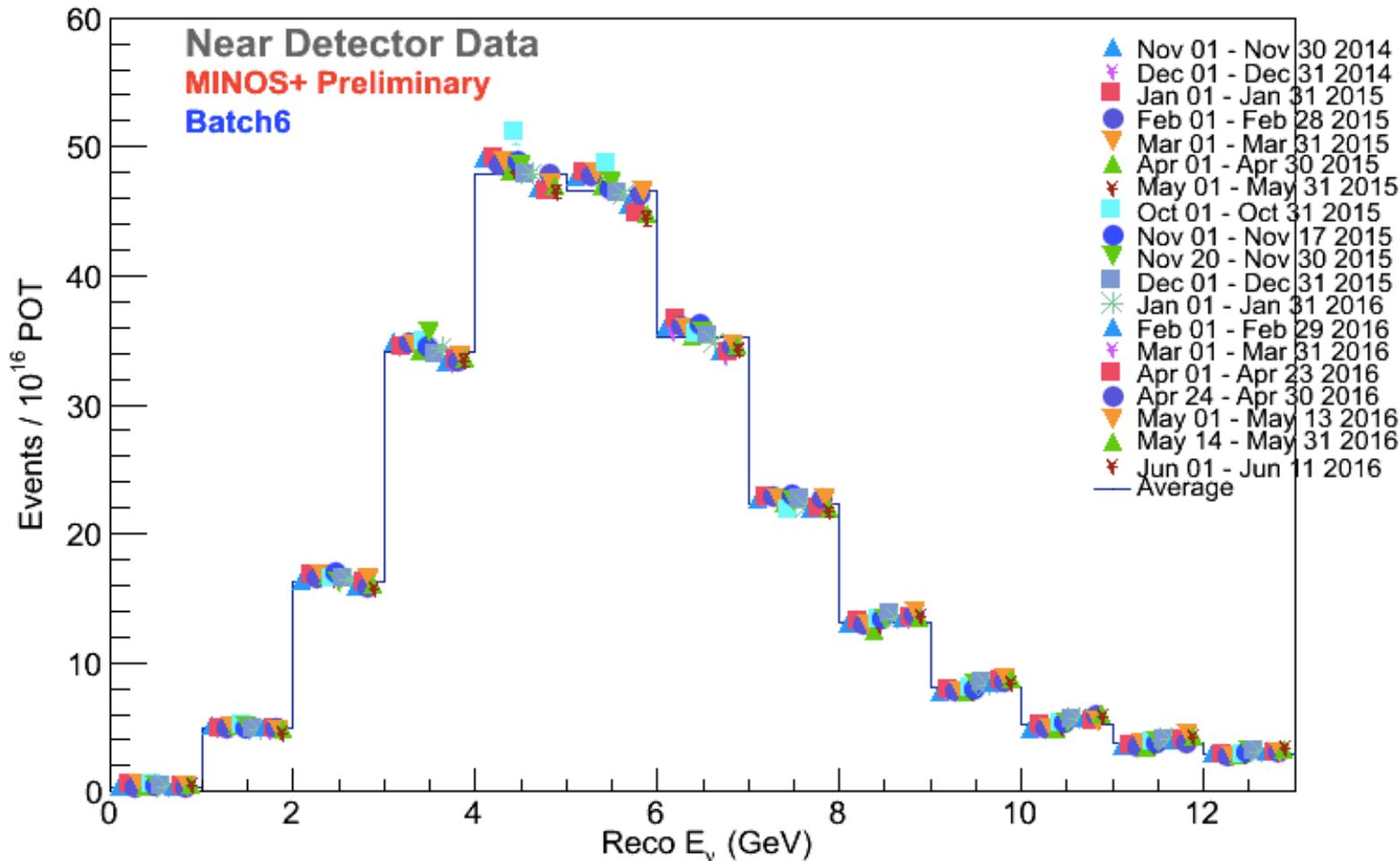




Spectrum Stability (batch #6)



Neutrino Selected Batch Energy Spectrum Stability (PQ and NQ)

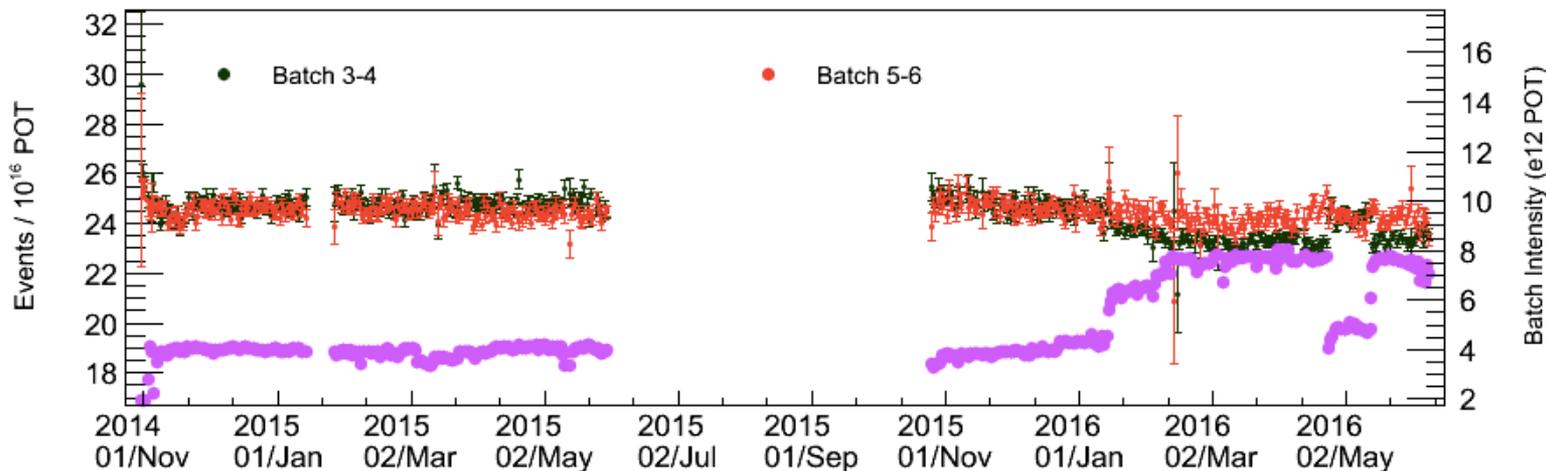




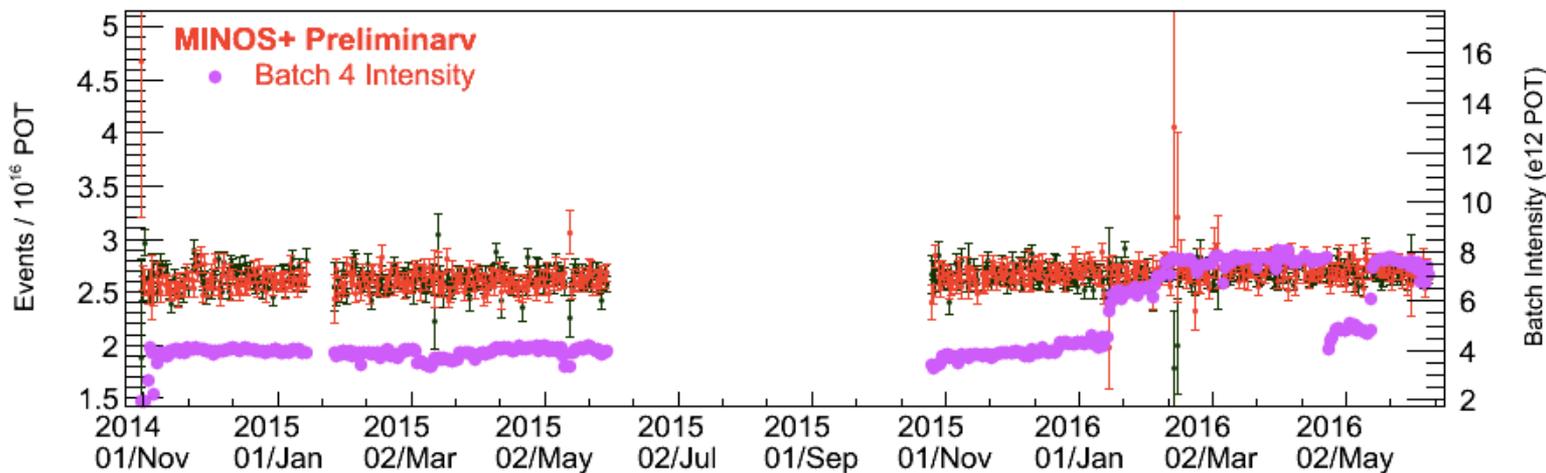
Events/POT vs. Time



Neutrino Events Per POT v.s. Time ($E_{\nu} < 14 \text{ GeV}$)



Neutrino Events Per POT v.s. Time ($E_{\nu} > 14 \text{ GeV}$)

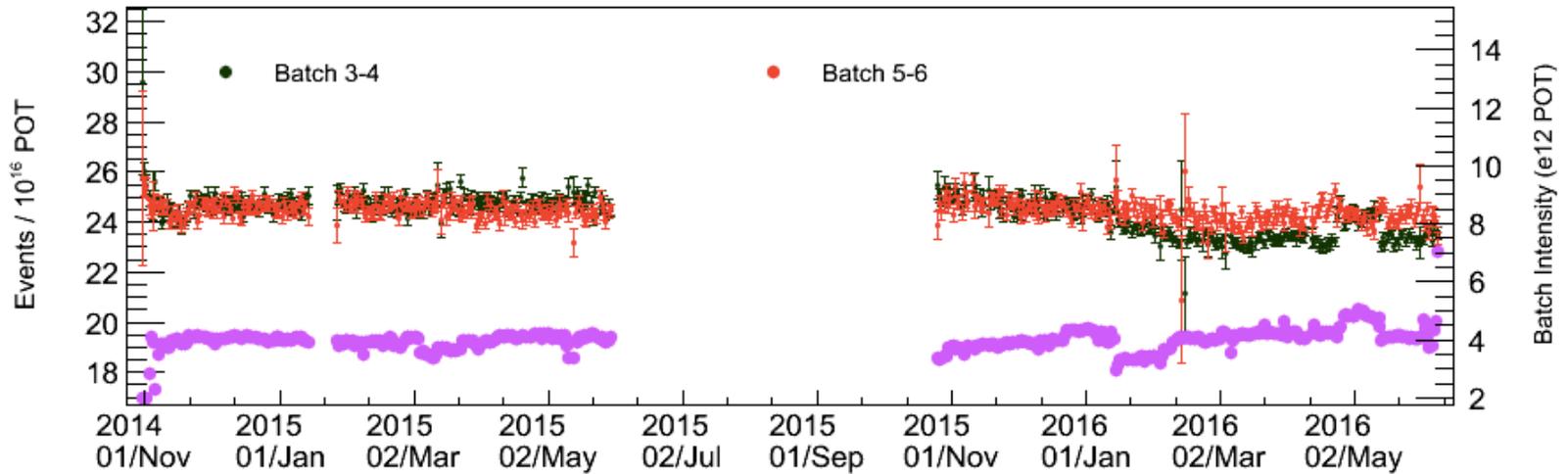




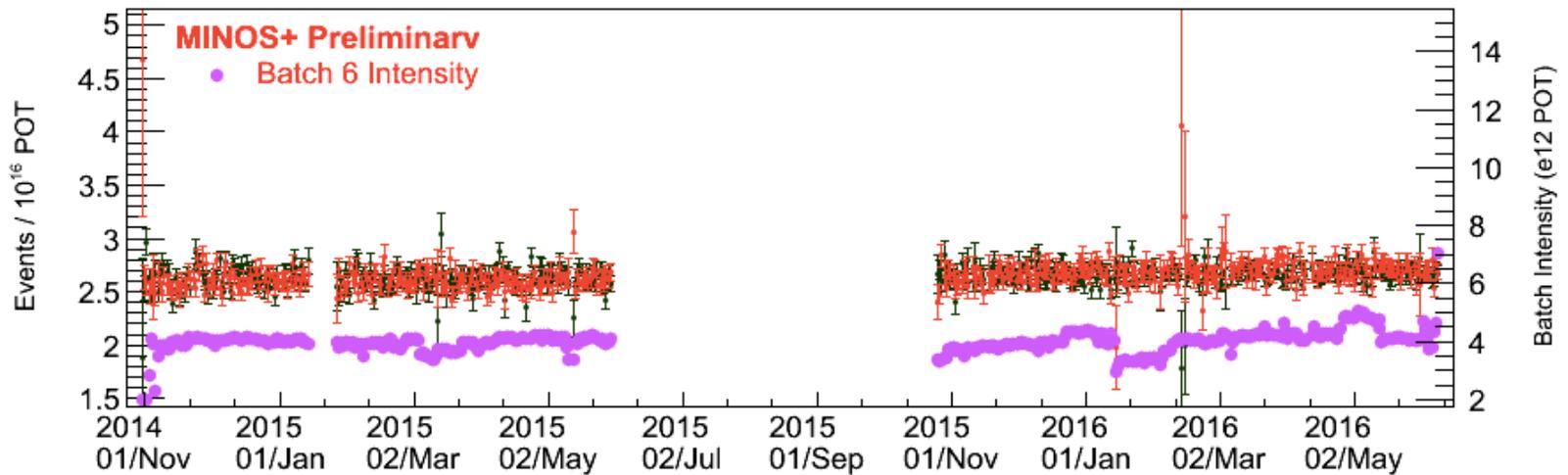
Events/POT vs. Time



Neutrino Events Per POT v.s. Time ($E_\nu < 14$ GeV)



Neutrino Events Per POT v.s. Time ($E_\nu > 14$ GeV)





Events/POT + Intensity



Spectrum by batches available at:

<http://minos.fnal.gov/DataQuality/BatchPage.php>